

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville,
Florida

November 2007

Holotype of *Agathymus escalantei* Stallings, Turner, and Stallings, 1966 (Lepidoptera: Hesperidae: Megathyminae)

Bret M. Boyd

Florida Museum of Natural History, University of Florida

Follow this and additional works at: <https://digitalcommons.unl.edu/insectamundi>

 Part of the [Entomology Commons](#)

Boyd, Bret M., "Holotype of *Agathymus escalantei* Stallings, Turner, and Stallings, 1966 (Lepidoptera: Hesperidae: Megathyminae)" (2007). *Insecta Mundi*. 68.

<https://digitalcommons.unl.edu/insectamundi/68>

This Article is brought to you for free and open access by the Center for Systematic Entomology, Gainesville, Florida at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Insecta Mundi by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

INSECTA MUNDI

A Journal of World Insect Systematics

0018

Holotype of *Agathymus escalantei* Stallings, Turner, and Stallings,
1966 (Lepidoptera: Hesperiidae: Megathyminae)

Bret M. Boyd

McGuire Center for Lepidoptera and Biodiversity
Florida Museum of Natural History, University of Florida
PO Box 112710, Gainesville, FL 32611-2710
Email: bboyd@ufl.edu

Date of Issue: 2 November 2007

Bret M. Boyd

Holotype of *Agathymus escalantei* Stallings, Turner, and Stallings, 1966

(Lepidoptera: HesperIIDae: Megathyminae)

Insecta Mundi 0018: 1-2

Published in 2007 by

Center for Systematic Entomology, Inc.

P. O. Box 147100

Gainesville, FL 32614-7100 U. S. A.

<http://www.centerforsystematicentomology.org/>

Insecta Mundi is a journal primarily devoted to insect systematics, but articles can be published on any non-marine arthropod taxon. Manuscripts considered for publication include, but are not limited to, systematic or taxonomic studies, revisions, nomenclatural changes, faunal studies, book reviews, phylogenetic analyses, biological or behavioral studies, etc. **Insecta Mundi** is widely distributed, and referenced or abstracted by several sources including the Zoological Record, CAB Abstracts, etc.

As of 2007, **Insecta Mundi** is published irregularly throughout the year, not as a quarterly issues. As manuscripts are completed they are published and given an individual number. Manuscripts must be peer reviewed prior to submission, after which they are again reviewed by the editorial board to insure quality. One author of each submitted manuscript must be a current member of the Center for Systematic Entomology.

Managing editor: Paul E. Skelley, e-mail: skellep@doacs.state.fl.us

Production editor: Michael C. Thomas, e-mail: thomasm@doacs.state.fl.us

Editorial Board: J. H. Frank and R. E. Woodruff

Printed copies deposited in libraries of:

CSIRO, Canberra, ACT, Australia

Museu de Zoologia, São Paulo, Brazil

Agriculture and Agrifood Canada, Ottawa, Ontario, Canada

The Natural History Museum, London, England

Muzeum I Instytut Zoologii Pan, Warsaw, Poland

National Taiwan University, Taipei, Taiwan

California Academy of Sciences, San Francisco, CA, USA

Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA

Field Museum of Natural History, Chicago, IL, USA

National Museum of Natural History, Smithsonian Institution, Washington, DC, USA

Electronic copies in PDF format:

Printed CD mailed to all members at end of year.

Florida Center for Library Automation: purl.fcla.edu/fcla/insectamundi

Author instructions available on the Insecta Mundi page at:

<http://www.centerforsystematicentomology.org/insectamundi/>

ISSN 0749-6737

Holotype of *Agathymus escalantei* Stallings, Turner, and Stallings, 1966 (Lepidoptera: Hesperiiidae: Megathyminae)

Bret M. Boyd

McGuire Center for Lepidoptera and Biodiversity
Florida Museum of Natural History, University of Florida
PO Box 112710, Gainesville, FL 32611-2710
Email: bboyd@ufl.edu

Abstract. *Agathymus escalantei* Stallings, Turner, and Stallings, 1966 (Lepidoptera: Hesperiiidae) is the only described species of Megathyminae known from a single collected individual. To date, the only images of this specimen are poor black and white illustrations published in the original description. This note presents the first color photographs of the holotype.

Additional key words: Agavaceae, *Agave tequilana*, *Agathymus fieldi*, *Agathymus remingtoni*, Guerrero, Mexico.

Agathymus escalantei was described by Stallings et al. (1966) from a single adult female collected in Guerrero, Mexico (Fig. 1-2). The type specimen was originally deposited in the collection of Tarsicio Escalante, D. F., Mexico (Stallings et al. 1966). In 1973, the Escalante collection was obtained by the Allyn Museum of Entomology, Sarasota, Florida and is now part of the collection at the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, Gainesville, Florida (labels in Fig. 3).

Phenotypically, *A. escalantei* is distinguishable from all other known species of *Agathymus* by coalesced pale yellow macules within the discal cell and cells M_3 , CuA_1 , and CuA_2 which form a nearly continuous “creamy lemon-yellow” area on the forewing dorsum. Stallings et al. (1966) noted that this species most closely resembles *Agathymus fieldi* Freeman occurring to the north of *A. escalantei* in Jalisco, Mexico (Freeman 1960, 1969). Geographically, *A. escalantei* occurs closest to *Turnerina hazelae* (Stallings and Turner) (Hesperiiidae, Megathyminae) known from the Chilpancingo area, Guerrero, Mexico (Mielke 2005), but they are not closely related. Freeman (1969) placed *A. escalantei* within the “remingtoni” species complex based exclusively on adult characteristics (including pale yellow macules of the dorsal surface and dull white overscaling of ventral surface). Within the “remingtoni” species complex, Freeman (1969) also included *A. remingtoni* Stallings and Turner, *A. estellae* Stallings and Turner, *A. valverdiensis* Freeman, and *A. fieldi*, but noted problems of grouping *A. escalantei* with these species. While *A. remingtoni*, *A. estellae*, and *A. valverdiensis* form a unified group with similar phenotypes, using *Agave* species of the “marginatae” group (Agavaceae) as larval hosts, and primarily occurring in northeastern Mexico (Freeman 1969, see also Gentry 1982), the potentially more closely allied *Agathymus fieldi* occurs to the southwest of these species feeding on *Agave tequilana* Weber (Agavaceae) (Freeman 1969, see also Gentry 1982). *Agathymus escalantei* differs from all “remingtoni” species complex taxa by the enlargement of the macules in the discal cell and cell CuA_1 of the forewing and almost complete lack of macules on the hindwing of females. The life history and distribution of *A. escalantei* remains unavailable for comparison. Without additional specimens, details of life history, and determination of host plant associations, its taxonomic placement is equivocal.

Acknowledgments

I thank George T. Austin, Jaret Daniels, Christine Eliazar, Jacqueline Y. and Lee D. Miller, and Andy Warren of the McGuire Center for Lepidoptera and Biodiversity, for help with literature searches, reviews of the manuscript, and technical support, and Carmen Pozo, ECOSUR, Chetumal, Mexico, for help with locating records.

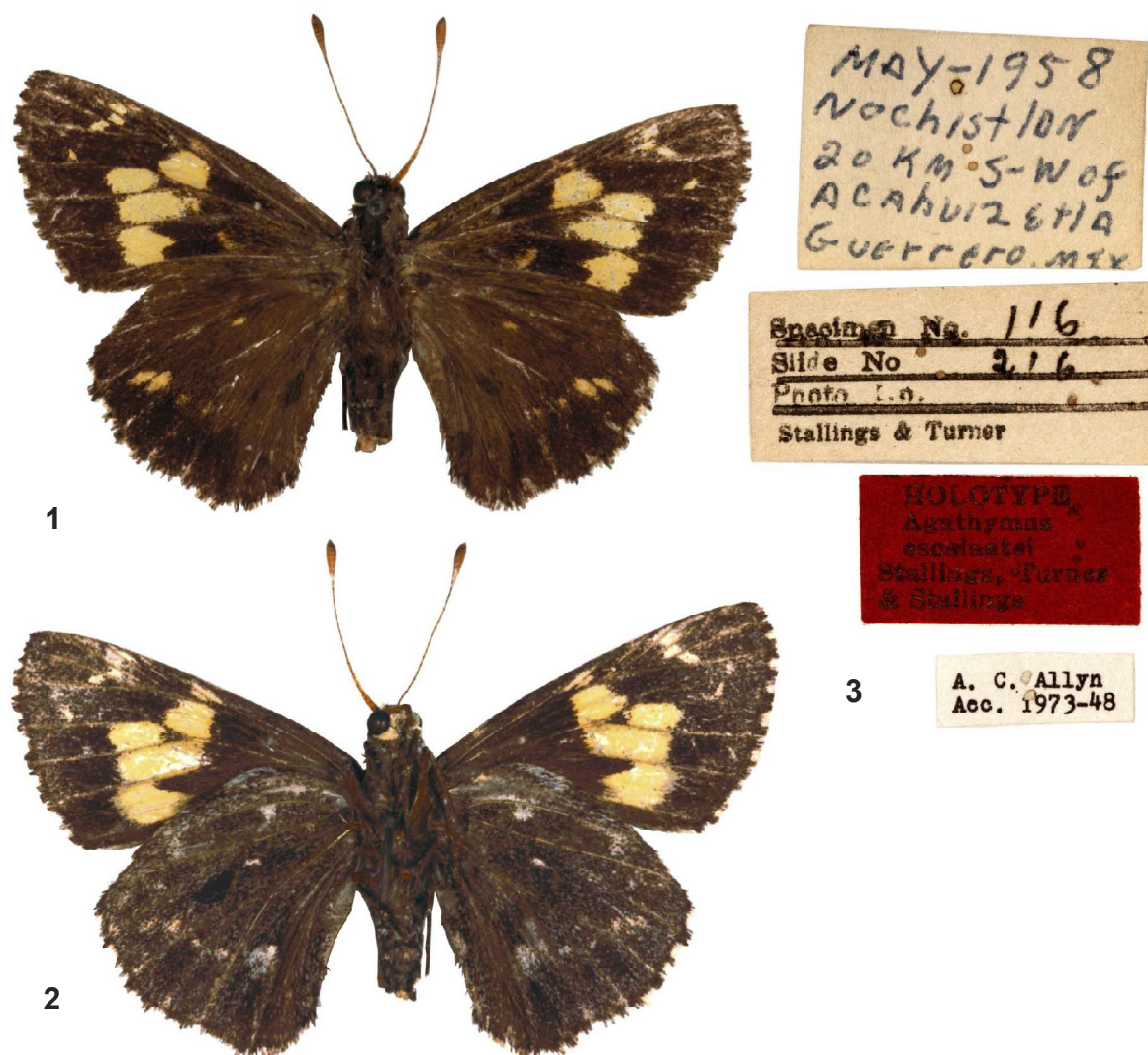


Figure 1-3. Holotype *Agathymus escalantei*. 1) Dorsal view. 2) Ventral view. 3) Labels.

Literature Cited

- Freeman, H. A. 1960.** Notes on *Agathymus* in Texas, and the description of a new species from Mexico. *Journal of the Lepidopterists' Society* 14:58-62.
- Freeman, H. A. 1969.** Systematic review of the Megathymidae. *Journal of the Lepidopterists' Society* 23(supplement 1):1-58.
- Gentry, H. S. 1982.** *Agaves of Continental North America*. University of Arizona Press; Tucson. 670 p.
- Mielke, O. H. H. 2005.** Catalogue of the American Hesperioidea: Hesperioidea (Lepidoptera). Vol. 6. Heteropterinae: Megathyminae. Sociedade Brasileira de Zoologia; Curitiba, Brazil. 1387-1536 p.
- Stallings, D. B., J. R. Turner, and V. N. Stallings. 1966.** Two new species and two new subspecies of Megathymidae from Mexico and the United States. *Journal of the Lepidopterists' Society* 20:163-172.

Accepted October 22, 2007.